

MONTANA DNRC FLOODPLAIN PROGRAM 2013
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Drought, fire, flood

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Montana State Library • Natural Resource Information Systems
Montana Water Supply and Moisture Status by County
<http://nris.mt.gov/drought>

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USDA Natural Resources Conservation Service (NRCS)
Montana Water Supply Outlook • Mountain Snow Water Equivalent

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Montana Governor's Drought Advisory Committee Governor's Report FY 2012
Surface Water Supply Index (SWSI) Values
dnrc.mt.gov/AboutUs/Publications/2013/DNRC_annualreport_2012.pdf

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Montana DNRC • 2015 Montana Water Supply Initiative
Major Water Planning Basins •
http://www.dnrc.mt.gov/wrd/water_mgmt/state_water_plan/

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USDA Natural Resources Conservation Service (NRCS)
Creating Native Landscapes In Northern Great Plains and Rocky Mountains
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Annual Report 2012 - Large Fires 2000-2012 • dnrc.mt.gov/

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Montana's State Assessment of Forest Resources Base Findings & GIS Methodology
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Fire Management Plan 2004
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State of California
 100' Defensible Space • calfire.ca.gov/communications/firesafety
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What Can You Do to Reduce Wildfire Risk?www.springsgov.com/units/fire/wildfire/WM_Brochure.pdf

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American Society of Civil Engineers

So You Live Behind A Levee!content.asce.org/ASCELeveeGuide.html

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Drainage ditch behind levees • <https://en.wikipedia.org/wiki/Ditch>Montana shelter belts • www.mt.nrcs.usda.gov/technical/images/forestimages

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Subsurface gravel wetland

Univ. of New Hampshire Stormwater Center • www.unh.edu/unhsc

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The Oberlin Project • <http://www.oberlinproject.org/>

Also see:

It Begins With a Seed <http://www.bnim.com/bookshelf/oberlin-project>

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TRAIL MAGIC Creating an Energy Positive Affordable Home Oberlin, OH Carl McDaniel

www.rpi.edu/~mcdanc/trailMagic.htm

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CENTER FOR INTERACTIVE RESEARCH ON SUSTAINABILITY (CIRS) Vancouver

<http://cirs.ubc.ca/>*All other slides*

Watson, Donald and Michelle Adams

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Credits: The following notes are excerpted from an article by the author, “Community Design Charrettes” in *Time-Saver Standards for Urban Design*, Donald Watson, editor (McGraw-Hill) 2003.

Participatory workshops and design charrettes

Donald Watson, FAIA

The term “community planning” refers to physical planning at the community scale, e.g., neighborhoods, urban scale community developments, and/or suburban communities, through a process involving broad-based community citizen and stakeholder participation.

Methods for involving communities in the physical planning process have been developed at least since the 1960s, sometimes referred to as “participatory design,” and characterized by different degrees of involvement, or the “ladder of participation.” The ladder of participation helps to define differences in how and when community stakeholders are invited to take part in the planning process and the degree to which they are part of the decision-making framework:

- ***low to modest involvement:*** *Participation in information and needs assessment.*

Community members and representatives are interviewed as part of “needs assessment” or a “community area profile.” Focus meetings and information sessions are examples, in which community members participate in describing needs and possible idealized outcomes.

- ***modest involvement:*** *Participation in advisory decision-making.*

Community members and representatives are involved in an advisory role, providing input at several points in information gathering and assessment, including recommended courses of actions and/or feedback advise on planning and design proposals made by professionals. The RUDAT (Regional and Urban Design Assistance Team) of the American Institute of Architects and the Technical Assistance Panels (TAPs) of the Urban Land Institute (ULI) are representative examples, involving communities in a short-term (usually one week) intensive study of an urban area, with the results open to input by community representatives.

- ***high involvement:*** *Participation in planning and design.*

Community members and representatives are involved in the development of planning and design proposals, most often by participation in community design workshops or “charrettes.” In a design workshop, community members provide the key information to guide professional designers, who in turn are asked to help the community group visualize options for future development. As community involvement more closely approaches “high involvement,” community members and representatives are active not only in information and advisory guidance, but also by deciding amongst alternatives. This elicits key value judgments and design decisions through either a consensus-based or a majority voting process.

Differences between the workshop process and planning & zoning process:

The community design processes, such as charrettes and vision workshops, are a preliminary and advisory phase utilized to explore options and community input prior to more formal planning proposals. In a consensus-based decision process, the outcomes are developed by inclusive discussion, debate and agreement reached without any official or formal vote or an adversarial process. Expert input, such as environmental and other technical advice, is introduced by many experts, usually invited to work alongside of and as part of the planning and design process.

Most planning and zoning hearings, by definition, are quasi-legal proceedings, which adopt some form of receiving public comment, such as “pro and con” comments about a specific proposal. A public hearing is normally the only way that comments by interested community members and citizens are able to comment in response to proposals already well developed. The process is thus often “reactive” to proposals already well formed and can easily lead to adversarial confrontation over debatable issues and design proposals. Opinions and judgments are expressed in order to convince a Planning and Zoning (P&Z) Board to make a regulatory and legally binding decision about a proposed plan. Technical input is presented as professional expert advice, which has to be carefully documented to have legal standing as evidence similar to submission and testimony at a legal hearing.

Strengths and weaknesses of community design process

Advantages:

- The process is “pro-active.” Enabling citizens to actively participate in planning.
- The process is open and informal, allowing a range of opinions to be heard and included.
- The process is undertaken early enough so that there is “low risk” and “low cost” and/or few barriers to public participation.
- The process involves citizens both as information courses and as evaluators, so that local community values are represented in decisions.
- The process allows for a diversity of opinion including extreme positions and, given the opportunity, these are moderated by the community itself.
- The process allows highly charged and divisive issues to be heard within a process of openness and fairness, thus facilitating a process of conciliation.
- Expert opinion is introduced into the discussion in informal meetings where professionals are working alongside citizens. This helps to demystify professional expertise and to help educate the public regarding complex technical issues.
- Decision-making is relatively low cost, often engaging local professionals on a volunteer, pro-bono or reduced time and fee basis.

Disadvantages:

- The process is only loosely defined, and as such, can be manipulated and/or subject to criticism by participants and non-participants alike.
- The process requires early decision-making on key points, such as site conditions, property ownership, resources available, often before such data are available.
- The process is generally “advisory” and is sometimes overruled by authorities that do not agree with its recommendations.
- The process requires sensitive facilitation and broad community representation to avoid early frustration and resulting community resistance and/or apathy.
- The process is not widely known, requiring a “learning period” on the part of community stakeholders and the creation of trust in the process and its facilitation.

Strengths and weaknesses of planning and zoning process:

Advantages:

- The process is long-standing and defined by legal process, including precedents to establish a body of law related to planning decisions.
- Representatives on Planning & Zoning Boards and on Boards of Appeals are either elected or appointed, and thus representative and ultimately accountable to public interest.
- Public interest, as well as opposing private interests, is given legal standing by a defined process of public hearing, which vary according to each locality's Planning Board.

Disadvantages:

- The public interest is often represented only by opposition that is rallied in response to development proposals brought forward by private interests. Public often perceive such proposals as well financed and representing only private or commercial interests, against which public opinion is given unequal status and often without professional advise.
- Developers who make Planning and Zoning proposals have to invest a great deal in engineering studies prior to receiving permitting approval.
- Because local officials often make Planning & Zoning appointments, P&Z decisions can be seen as representative of the prevailing "political" interests.
- Public input is most often "reactive." that is, in response to proposals made by others, most often without any public comment period prior to the Planning and Zoning Public Hearing.
- Public input, to be effective, has to be guided by legal counsel, thus creating the burden of the cost for professional and legal expense to represent broader public interests.
- Expert opinion is presented within the terms of a legal proceeding, and is thus costly to produce and often can be contradictory and open to interpretation, such as traffic studies, environmental impact studies, etc.

DESIGN CHARRETTES

The term "charrette" is adopted from the storied practice of *Ecole des Beaux Arts* architectural students in nineteenth century Paris who reputedly could be seen still drawing their projects until the last minute as they were carried "on the cart"—*en charrette*—on the way to the academy's jury. In its modern-day adaptation, *charrette* refers to an intensive design workshop involving people working together on vision plans and drawings under compressed deadlines.

In its use today, a "charrette" is a design and planning workshop held in a two- to three-day period in which architects and other design professionals, community leaders, public officials and citizens work together to envision alternatives for a local building program, neighborhood or regional community project, with an emphasis upon long-term economic, social and environmental sustainability/

The charrette process combines techniques familiar from brainstorming methods—letting ideas flow in an open way, each building upon the suggestions of all participants—as well as from "Future Search" processes—creating time-lines and

issue maps and diagrams—all of which help individuals, groups and communities to visualize design alternatives and to discuss and evaluate best choices.

A design charrette is the result of many months of planning, necessary to successfully convene a diverse set of community members and representatives, public leaders and outside "experts," each of which by definition may represent conflicting agendas, diverse personalities, and cross-purposes. Meetings that are not well planned and facilitated can set community discussions back rather than to advance a community involvement proposal, due to miscommunication, misunderstanding or misuse of initial good will. Nevertheless, there are ways to help make such meetings successful.

Any group or community meeting requires an organizational structure defined to a sufficient level of detail so that many people can work together, to create a smooth running event. Decisions that need to be put into place include meeting location, sufficient planning time prior to the event, involvement of key stakeholders, and an organizational group or committee. The organizational roles require leadership, diplomacy, persistence and humor!

A design workshop/charrette is typically a one- to two-day event to three-day event. In some cases, more time is needed, although this makes it more difficult to include a large number of people in the entire event. A typical size of group is between thirty and sixty people, although many workshops have involved several hundred and more. Involving greater numbers is possible but should be considered "advanced level" in terms of organizational and facilitative capacity.